

ABSTRACT OF THE DISCLOSURE

5 The invention is, in its various aspects, a method and apparatus for dynamically
generating trace data reports in a semiconductor fabrication process employing fault detection
control. The method comprises specifying data for a trace data report, the specified data
including at least one of a parameter, a trigger, and a frequency for the trace data report;
10 automatically generating from a fault detection controller a request to a report generator for
the trace data report, the request including the specified data; formulating the trace data report
responsive to the request; and returning the formulated trace data report from the report
generator based on the request. In other aspects, the invention comprises a computer
programmed to perform this method and a computer-readable, program storage medium
20 encoded with instructions that perform this method when executed by a computer. The
apparatus is a semiconductor fabrication processing system, comprising: a fabrication tool
capable of providing at least one of specified data and a trace data report; a fault detection
controller implementing a fault detection control, the fault detection controller being capable
of automatically generating a request for the trace data report, the request including the
specified data; a report generator capable of requesting at least one of the specified data and
the trace data report from the fabrication tool and capable of, if the specified data is requested
from the fabrication tool, providing the trace data report; and an operator interface for
receiving data specified for the trace data report, the specified data including at least one of a
parameter, a trigger, and a frequency for the trace data report, and to which the trace data
report may be returned from at least one of the report generator and the fabrication tool.